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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,157	02/18/2004	Floyd Backes	160-030	6049

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EXAMINER	
NGUYEN, HANH N	
ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/781,157	BACKES ET AL.	
	Examiner	Art Unit	
	Hanh Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Amendment filed on 2/27/07*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) *6-10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,11 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to amendment

The amendment filed on 2/27/07 has been entered, of which the terminal disclaimer was approved. Claims 1-5, 11 and 12 are pending. Claims 6-10 are withdrawn. The 112 2nd paragraph rejections of claims 2, 5, 11 have been withdrawn.

On the Remark, claim 12, applicant argues hand off protocol is not equivalent to a communication protocol. Since applicant does not specifically indicate in the claim what protocol is referred as a communication protocol. It is required that the IEEE 802.11x protocol be shown in the claim. A communication protocol is any kind of generic protocol used to communicate including handoff transmissions in wireless networks. One skilled in the art can select a preferred protocol such as TDMA, CDMA , IEEE802.11x that is suitable to communicate in wireless networks. Examiner agrees with applicant that communication protocol including but not limited to IEEE 802.11x, GSM, UMTS, TDMA, CDMA.

The amended claim 1 including calculating a distance to the alternate access point as indicated by signal strengh of at least one communication received from the alternate access point has been reconsidered as shown by English et al. below.

Applicant further argues in claim 1 that Pinard does not disclose ascertaining by a wireless device whether the wireless device should atempt to associate with an alternate access point including calculating an available data rate from the alternate access point.

Pinard discloses that the mobile unit scans and identifies the most elligible access point for association at the highest data rate by sending out probe packets to all access points. The mobile unit evaluates signal quality from all access points within the range to determine the most

eligible access point at the highest data rate (see fig.3; col.5, lines 15-30). This explicitly indicates that the mobile unit calculates available data rate from an alternate access point.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2003/0036374 by English et al. in view of U.S. Patent No. 6,580,700 to Pinard et al.

Regarding claims 1, 11, English teaches a method for use by a wireless device (e.g., mobile node 902a, see FIG. 10) in a wireless communications environment (see fig.10, page.11, paragraph 0164; wireless network 900b), the method comprising the steps of associating the wireless device with a current access point (e.g., see page 12, paragraph 0165; mobile node 902a is serviced by first access point 904a. In addition, see paragraph 0170, particularly lines 9-17 mobile node 902a is able to make decision which of access points 904a or 904b it is associated with); ascertaining, by the wireless device (mobile 902a), whether the wireless device should attempt to associate with an alternative access point including calculating distance to the alternate access point as indicated by signal strength of at least one communication received from the alternate access point (e.g., see paragraph 0171, page 13, mobile node 902a while moving from access point 904a to access point 904b, finds that the signal power/BER (signal strength) is better with access point 904b, so the mobile 902a decides to associate with access

point 904b. The access point 904b tells the mobile node 902a to wait until it gets to a distance X from the access point 904b before trying to associate with the access point 904b); and requesting association with the alternative access point if it is ascertained that the alternative access point is preferrable (e.g., see paragraph 0180 regarding the handoff of communications to a new access point; see also generally paragraphs 0146-0181).

However, English may not specifically disclose the ascertaining includes calculating an indication of available data rate and load from the alternative access point.

Pinard, like English, also teaches a method for use by a wireless device for associating with access points (e.g., see abstract and col. 2, line 36-col. 3, line 36). Further, Pinard specifically teaches ascertaining for association with an alternative access point (e.g., see col. 2, lines 49-59 regarding "'associating with the most eligible access point at the highest data rate") includes calculating an indication of available data rate from the alternate access point (see fig.3, col.5, lines 15-30; mobile unit sending out probe packets to all access points and evaluates signal quality from all access points within the range to determine the most eligible access point at the highest data rate (see fig.3; col.5, lines 15-30). Pinard further discloses in fig.5, steps 19 and 20, col.6, lines 20-30; that the access point selects the most eligible access point (alternative access point) based on how many mobile units (current load) currently are associated with a given access point). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the access point association teachings of Pinard to the access point association method of English in order to provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35).

Regarding claim 2, examiner does not examines limitation " operating on other channels" because this limitation lacks of antecedent and is not supported by its parent claim. English teaches automatically collecting, by the wireless device, information about alternative access points (e.g., see in page 12, paragraph 0166; mobile node scans for available access points and automatically connects to a desired access point).

Regarding claim 3, Pinard teaches ascertaining further includes the step of determining that the wireless device should attempt to associate with the alternative access point if the alternative access point has a lower biased distance relative to the wireless device (e.g., see page 13, paragraph 0171; the mobile 902a waits until it gets to distance X from the access point 904b before trying to associate with access point 904b; the distance X means that the signal power/BER with access point 904b is better).

Regarding claim 4, English in view of Pinard teach the method discussed above regarding claim 3, and further, English teaches calculating a first biased distance between the wireless device (e.g., mobile node 902) and the current access point based on "x" samples (e.g., see paragraphs 0167-0168 and 0175 regarding the impulse radio unit 1016 within mobile node 902 triangulating the current position of the mobile node 902, inherently comprising three or more samples); and calculating a second biased distance between the wireless device and the alternative access point based on "y" samples (e.g., see paragraphs 0175-0180, mobile node 902 estimating such a distance by comparing the current position of the mobile node 902 with a map generated in step 1104 of FIG. 11 which comprises the position of a different access point such as 904b or 904c) where "y" (e.g., known position of mobile node 902 and known position of access point 904b) is less than "x" (e.g., three of more samples for triangulating the current

position of mobile node 902). Also, as discussed above, Pinard teaches ascertaining further includes the step of determining that the wireless device should attempt to associate with the alternative access point if the alternative access point has a greater available data rate than the current access point (e.g., see col. 5, lines 26-31; regarding selecting the "highest data rate" for association and see col. 7, lines 26-31; regarding not associating with an alternative access point if the alternative access point is the same data rate with similar signal strength as the current access point). As discussed above, the teachings of Pinard provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the access point association teachings of Pinard to the access point association method of English in order to provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35).

Regarding claim 5, English teaches sending a message to the alternative access point (e.g., see paragraph 0173, mobile node 902a communicates with different access points 904b, 904c via impluse radio signals 914, see fig.9).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2003/0036374 by English et al. in view of U.S. Patent No. 6,580,700 to Pinard et al. and further in view of Parks (US pat. 6,959,001 B1).

Regarding claim 12, since applicant indicates in the Remark that the communication protocol is IEEE 802.11x (see Remark). It is required that the IEEE 802.11x be shown in the claim. However, English discloses the wireless network 900a is applied in ultra-wideband technology. Pinnard discloses an IEEE 802x protocol (col.10, lines 35-40; communication

protocol). Therefore, it would have been obvious to one ordinary skilled in the art to use the IEEE 802.11x protocol in the English et al. invention in order to allow the mobile unit determining an alternate access point with a highest data rate to associate its communication with.

Response to Arguments

Applicant's arguments with respect to claims 1-5, 11 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rezaiifar et al. (Us pat. 6,996,127 B2) ;

Kim (US Pat. 6,208,631 B1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30PM. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild , can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen



HANH NGUYEN
PRIMARY EXAMINER